**Study Guide for Circles Quiz**

**What is the standard equation of each circle?**

1. center (2, 3); radius = 5 **(x-2)2 + (y-3)2 = 25**
2. center (0, −1); radius =  **x2 + (y+1)2 = 7**
3. center (0, −9); *r =* 9 **x2 + (y+9)2 = 81**
4. center (4, 7); passes through (10, 15) **(x-4)2 + (y-7)2 = 100**

**What is the center and radius of each circle?**

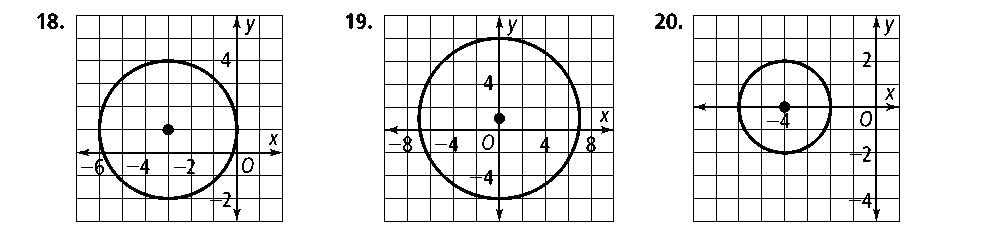
**5.** (*x −* 5)2 + *y*2 = 36 **6.** (*x +* 1)2 + (*y +* 6)2 = 15

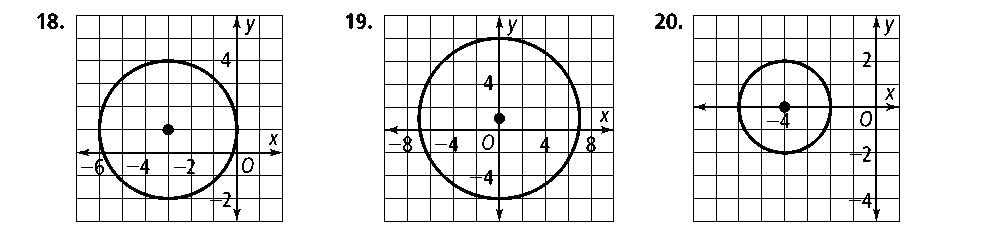
**center (5,0); radius=6 center (-1,-6); radius=**

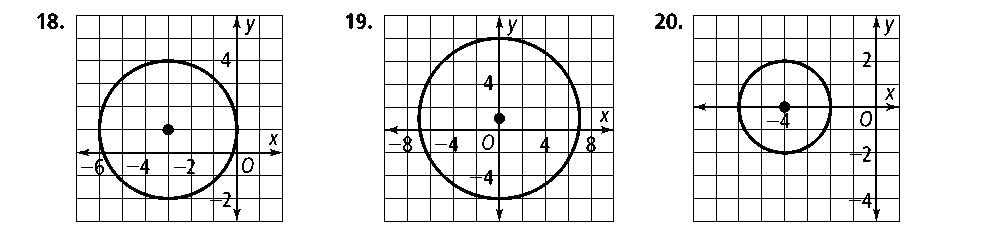
**7.** (*x* − 4)2 + (*y* – 3)3 = 16 **8.** (*x* + 7)2 + *y*2 = 10

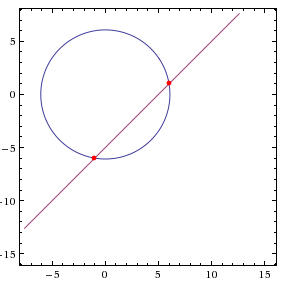
**center (4,3); radius=4 center (-7,0); radius=**

Write the standard equation for the following circles

**9. (x+3)2 + (y-1)2 = 9**

**10. x2 + (y-1)2 = 49**

**11. (x+4)2 + y2 = 4**

**Find all points of intersection and then sketch the graph.**

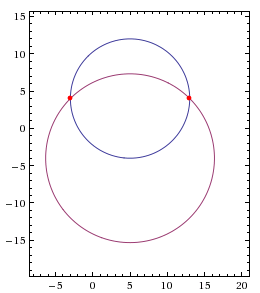
**12.** *x*2 + *y*2 = 37

y = x − 5

**Points of intersection:**

**(-1,-6)**

**(6,1)**

**13.**  (x-5)2 + (y-4)2 = 64

(x - 5)2 + (y+4)2 = 128

**Points of intersection:**

**(-3,4)**

**(13,4)**